the terminals of a line talk relay LT to the secondary winding of a transformer **146**. The terminal of the line hold relay LH is also connected through a resistor **148** to a headset or similar device **150**.

The output signal from the tone generator **126** is amplified and provided to the primary winding of the transformer **146** through a suitable amplifying network.

In operation, data received on the PC bus may be read through the buffer **110** to the read multiplexor **100**. The microprocessor **60** controls which input appears on the read multiplexor **100**, i.e, whether the buffer **110**, the first switch set **112**, the second switch set **114**, or the output of the DTMF decoder **116** is provided to the read ports of the microprocessor **60** through the read multiplexor **100**. In a similar fashion, the write multiplexor **102** is controlled to determine which of the output devices, i.e., the tone generator **126**, the relay drivers **124** or the write buffer **122** are connected to the write ports of the microprocessor **60** at any one time.

When data addressed to the interface unit **50** is received via the read portion of the PC bus **108** and the read buffer **110**, a signal indicating the presence of data addressed to the microprocessor **60**. When the microprocessor detects a signal on the interrupt line, the microprocessor **60** knows that data is ready to be read at the buffer **110**. Typically the data to be read at the buffer **110** consists of commands from the microprocessor associated with the general purpose computer, or from some other device communicating on the PC bus **44**. Additionally, the read buffer **110** many contain signals representing data to be supplied to the microprocessor **60**, such as the subscriber number of the telephone to be dialed.

Upon receiving the commands and/or data, the microprocessor **60** takes the action appropriate to the command, resetting status flags within its own logic, controlling the various output devices and/or preparing data to be transmitted to the microprocessor **40** associated with the general purpose computer.

The first switch set **112** and the second switch set **114** each contain plural individual switches which may be set manually by the user of the system to indicate which of various options, such as the length of the tones which signal the telephone network, are to be utilized. As the switches are manual, even if power is lost to the microprocessor and its memories, upon restoration of power the switches may be read to inform the microprocessor **60** of the desired state of the variable settings. Other conventional semi-permanent indicators such as code plugs, broken wiring traces, etc., may be utilized in place of the switch sets **112** and **114**.

The DTMF decoder **116** receives a signal SIG IN derived from the telephone line as sensed on the primary side of the transformer **146**. The DTMF decoder **116** is a conventional decoder which examines the content of the SIG IN signal and provides a digital output indicative of whether one or more of the predetermined DTMF tones is present within the signal. The digital decoded signal is provided to the microprocessor **60** through the read multiplexor **100** when requested by the microprocessor **60**.

The microprocessor **60** also controls the writing of data to the PC bus **44** through the write buffer **122** and write multiplexor **102**. When desired, the microprocessor **60** may transmit the data to be written to the write multiplexor **102** and a signal which indicates that the data is to be written to the write buffer **122**. The write multiplexor **102** in turn enables the write buffer **122** and provides the data to be written to the buffer **122**. In a conventional fashion, the write buffer **122** writes the data on the write portion of the PC bus **120** at the appropriate time and providing the appropriate addressing signals as is well known and conventional in general purpose personal computers.

The microprocessor **60** may also control the tone generator **126** through the write multiplexor **102**. The tone generator **126**, upon receiving a digital signal indicative of a tone to be provided, generates the appropriate DTMF or dialing tones which are provided through the conventional amplifying network to the transformer **146** and ultimately to the telephone line itself.

The microprocessor **60** additionally controls the relay drivers **124** through the write multiplexor **102**. When the state of any of the relays, LL, LT, or LH is desired to be changed, the microprocessor **60** can send signals indicative of the change of state of the relay drivers to the write multiplexor **102** which in turn enables the relay drivers **124** as specified by the microprocessor **60**. The relay LL controls the loading of the telephone line, i.e., the on hook or off hook condition. The line talk relay LT controls the provision of the audio signal to the headset **150**, independently of the condition of the line load relay LL. The line hold relay LH disables the audio signal from being transmitted to and from the telephone line while maintaining the line in a loaded condition.

With reference to FIG. **4**, a display terminal **14** in a computer-system utilizing the present invention may be used to present information stored in a database within the computer system. For example, as depicted in the display terminal **14**, the information may include the identification of customers. The information may be arranged in a wide variety of manners on the display terminal **14**.

Many software programs exist to sort, store and display information. However, often each of the programs displays the information in different locations with the face of the display terminal. In accordance with the present invention, the user may provide signals indicating at what location on the face of the display terminal **14** is displayed a telephone number. Such signals may be supplied whenever the user desires the computer telephone interface unit to automatically dial the displayed number or they may be previously stored and utilized at the command of the user. In either event, the interface unit interprets the numbers at the specified location as being a telephone number and automatically places the desired call.

The system as described herein and the features discussed are intended only for purposes of illustration and discussion. It is of course contemplated that many of the features could be added and various changes and modifications in the system could be accomplished without departing from the spirit and scope of the invention.

What is claimed:

1. A communication system for coupling to a telephone line comprising:

a microprocessor housing;

a microprocessor located within said microprocessor housing;

a keyboard having a plurality of alphanumeric data entry keys comprising a full alphanumeric key set in a non-orthogonal typewriter array in communication with said microprocessor;

memory means located within said microprocessor housing and in communication with said micro-